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XVI.

THE TROPICAL FAUNAL ELEMENT OF OUR SOUTHERN NYMPHALINÆ SYSTEMATICALLY TREATED.

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Presented November 9, 1892.

IT is not a little remarkable that, with the exception of *Hypanartia* (Vanessini) and *Diadema* (Argynnini), all those genera of the subfamily Nymphalinæ which are essentially tropical or subtropical, and are represented on the extreme southern border of the United States by a very few species each, (species which in many cases must be looked upon as more or less accidental visitors,) belong to a few tribes which directly follow one another between the Nymphalini and Vanessini. Nevertheless they show a great diversity of forms, and since in the systematic arrangements heretofore given they have not been so closely connected as they are here conceded to be, I have thought it well to give the following succinct treatment of them, originally planned for a Manual of our Butterflies. The account of the early stages is very largely drawn from Wilhelm Müller's "Südamerikanische Nymphalidenraupen," but this has been supplemented from various sources.

TRIBE VICTORINIINI.

Butterfly: Antennæ very slender, the club moderately stout, rather short and rather rapidly incrassated, laterally tricarinate beneath except at extreme tip. Palpi compact, slender, tapering greatly, the last joint of considerable length. Wings broad with a feeble angle at the first inferior subcostal nervule of fore wings, the hind wings crenate with a distinct lobe at the upper median nervule; cell of both wings open. Last tarsal joint with two rows of spines beneath. *Egg*: Subconical, provided with few (9-11) and rather prominent ribs, which increase slightly in height toward but not reaching the pole. *Caterpillar at birth*: Head rounded, covered with simple bristles. Trichomes of body bristle-

like, in five longitudinal series on each side, pointed, and longer, some much longer, than the segments, those of the upper and lateral rows arcuate and bent forward at tip, the others straight. *Mature Caterpillar*: Head with a pair of long diverging coronal spines of uniform diameter but more or less enlarged at tip and with a few scattered papilla-seated hairs. Body with long and slender mostly pointed spines, when pointed terminating in a needle, their sides furnished sparsely with sessile needles; all ranged in three series on the sides, the lowest infrastigmatal, besides a dorsal set. Feeds on Acanthaceæ. *Chrysalis*: Rather stout and well rounded; abdomen without ridges, the basal segments moderately short, the third and fourth with several central conical spines, similar to the pointed mesothoracic and frontal tubercles, those of the abdomen sometimes obsolete; cremaster long and slender.

SYNOPSIS OF OUR GENERA.

VICTORINA. *Butterfly*: Last median branch of fore wings very strongly bowed at the base. *Egg*: —. *Caterpillar at birth*: Trichomes relatively short. *Mature Caterpillar*: Coronal spines of head scarcely enlarged at tip. *Chrysalis*: Third and fourth abdominal segments furnished with pointed spines.

ANARTIA. *Butterfly*: Last median branch of fore wings normal. *Egg*: —. *Caterpillar at birth*: Trichomes relatively long. *Mature Caterpillar*: Coronal spines of head clubbed at tip. *Chrysalis*: Third and fourth abdominal segments without raised spines, their place indicated by dark spots.

VICTORINA Blanchard.

Butterfly: Antennal club relatively slender, about twice as broad as the stalk. Second superior subcostal branch of fore wings long, arising before the end of the cell; second inferior subcostal branch gently bowed at the base; last median branch strongly bowed at the base, in contrast to that of the hind wings; tail of hind wings longer than broad. Fore tarsi of male not half the length of the tibia. *Egg*: See tribe; laid singly. *Caterpillar at birth*: Trichomes shorter than in Anartia. *Mature Caterpillar*: Coronal spines of head terminating in two or three tubercles which slightly enlarge its diameter. *Chrysalis*: Frontal tubercles, mesonotal tubercles, and those of third and fourth abdominal segments high, conical, and pointed, the last arranged in a transverse row on each segment. (Victoria; — name given soon after the accession of Queen Victoria.)

VICTORINA STÉLENES Linn. (*Papilio lavinia* Fabr.; *Nymphalis steneles* God.) *Butterfly*: Upper surface of wings rich dark

brown, marked with greenish white in a very broad premedian band crossing the hind wings and half the fore wings, supplemented on the fore wings by four very large elongated spots in the apical half of the wing, the lowermost connected with the band and sending a tongue into the middle of the cell; midway between band and margin a row of large oval green spots, continued on fore wings as a premarginal series of unequal, round, often faint, whitish spots. Under surface pale pearly green, the limits of the bands and spots of upper surface more or less vaguely mapped in ferruginous. Expanse 100 mm. *Mature Caterpillar*: Coronal spines of head 8 mm. long, red, broadly crimson at base, whitish in the middle, and brownish at tip. Body velvety black, the spines reddish gray, a mediodorsal stripe of stiff pile, less abundant than the unequal papilla-seated pile on the sides. Feeds on Blechnum. *Other stages* unknown. — S. Fla.; New Mexico; perhaps a mere straggler from the south.

ANARTIA Hübner.

Butterfly: Antennal club relatively stout, about three times as broad as the stalk. Second superior subcostal branch of fore wings short, arising beyond the end of the cell; second inferior subcostal branch retroarcuate at base; last median branch normal, as in hind wings; tail of hind wings broader than long. Fore tarsi of male much more than half as long as the tibia. *Egg*: See tribe; laid singly. *Caterpillar at birth*: Trichomes longer than in Victorina. *Mature Caterpillar*: Coronal spines of head clubbed at tip. *Chrysalis*: All the tubercles, including the frontal and mesonotal, obsolescent, those of the abdominal segments obsolete, their place marked only by pigment. (*ἀνάπρως*, incongruous; in allusion to its great difference in markings from its fellows?)

ANÁRTIA JÁΤΡΟΦΗ Linn. *Butterfly*: Upper surface of wings, except upper outer portion of fore wings, washed centrally with white, with two broad, crenated black-edged fulvous bars across cell of fore wings, an interrupted brown median line across both wings (in the hind wings formed of crescents), and three partial similar lines across the basal half of hind wings, besides a pair of slender brown crescentic premarginal bands on both wings, on a light fulvous base, and moderately large round black spots in the lower median interspace of both wings and the lower subcostal interspace of fore wings. Under surface whitish lilac, with somewhat similar markings, the fulvous inclining to ferruginous. Expanse

nearly 60 mm. *Egg and Caterpillar at birth*: Unknown. *Mature Caterpillar*: Black, the front of the first thoracic segment, the prolegs, and the base of many of the spines more or less ochraceous. Feeds on Lippia. *Chrysalis*: Smooth and wholly black, except that the borders of the antennal cases and the stigmatal fissures are whitish, and the cremaster is somewhat ochraceous at base. — Texas, S. Florida.

TRIBE EPICALINI.

Butterfly: Antennæ exceedingly slender, the club slender, nearly always elongate and then very gradually incrassate, feebly unicarinate beneath, the carination concealed when the club is elongate by the infolding of the under surface. Palpi compact, tapering, subcompressed and rather elongate, the last joint moderately long. Wings simple, usually broad, the hind wings well rounded, entire or feebly crenulate; cell of hind wings open, of fore wings open or closed by a feeble sinuate vein. Last tarsal joint with two rows of spines beneath. *Egg*: Short, subconical, provided with few (10–11) not very prominent ribs which increase very slightly in height toward without reaching the pole. *Caterpillar at birth*: Head simple, subtriangular. Trichomes of body bristle-like, very short and apically knobbed, arranged in five longitudinal series on each side, three above the spiracles. *Mature Caterpillar*: Head subquadrate, supporting a pair of excessively long, widely diverging subequal horns, armed with more or less whorled spinelets. Body armed with long, ranged, corneous, sparsely aculiferous spines, occasionally furnished with one or two spinelets, and always crowned by an independent needle, some of the spines occasionally reduced to warts; there are a dorsal series, and two other pairs above the spiracles, all the developed spines of nearly the same length. Feeds on Sapindaceæ, Euphorbiaceæ, and Urticaceæ. *Chrysalis*: Smooth, somewhat depressed, especially on abdomen, which tapers rapidly and has no ridges; a slight mesothoracic carina, sometimes produced to a point, prominent wing tubercles and short conical frontal tubercles; cremaster broad.

SYNOPSIS OF OUR GENERA.

EUNICA. *Butterfly*: Two superior subcostal nervules arising in the fore wings before the end of the cell, which is closed; costal and median veins much swollen at the base. *Mature Caterpillar*: Coronal horns of head with a very few opposed spinelets. Body subcylindrical.

DIETHRIA. *Butterfly*: Eyes pilose. First superior subcostal nervule of fore wings arising at end of cell, which is open; costal and median veins moderately swollen at base. *Mature Caterpillar*: Coronal horns of head with a few spinelets arranged in whorls. Body stoutest in the middle.

MESTRA. *Butterfly*: Second superior subcostal nervule of fore wings arising at end of cell, which is closed; only the costal nervule swollen at base. Fore tarsi of male excessively short. *Mature Caterpillar*: Unknown.

EUNICA Hübner.

Butterfly: Antennal club long and slender, very gradually incrassate. Eyes naked. First and second superior subcostal branches of fore wings arising before the end of the cell; cell closed by a feeble vein; both costal and median veins much swollen at the base. Fore tarsi of male as long as the tibia. *Egg* and *Caterpillar at birth*: Distinctive features undescribed, the eggs laid singly. *Mature Caterpillar*: Coronal horns of head curved at tip, furnished with only a very few opposed spinelets. Body of nearly equal thickness throughout, the developed spines ending in a straight thorn. Feeds on *Sebastiana* (Euphorbiaceæ). *Chrysalis*: Mesothoracic carina feebly developed. (Eunice, a Nereid.)

EUNICA MÓNIMA Cram. (*Nymphalis myrto* God.; *Cybdelis hyperipte* Edw. nec Hübn.; *E. modesta* Bates.) *Butterfly*: Upper surface of wings soft blackish brown, the apical half of the fore wings black, the whole with exceedingly faint purplish reflection; two distant straight oblique rows of rather small more or less obscure whitish spots cross the apical black field of fore wings, the inner of three, the outer of two spots. Under surface gray-brown, the hind wings and apex of fore wings with a faint bluish tinge, the markings of the fore wings repeated, but the black not reaching the apex, the hind wings crossed by three wavy dark brown lines, the outer submarginal, and between it and the median line a transverse series of very faint, finely brown-edged ochraceous ocelli with minute black pupils, that in the upper subcostal interspace blue-pupilled. Expanse 45 mm. *Early stages*: Unknown. — Texas, Florida.

DIETHRIA Billberg.

Butterfly: Antennal club rather short, rather rapidly incrassate. Eyes briefly and sparsely pilose. First superior subcostal nervule of fore wings arising at the end of the open cell; costal and median veins moderately swollen at the base. Fore tarsi of male as long as the tibia. *Egg* and *Caterpillar at birth*: Distinctive features un-

described, the eggs laid singly. *Mature Caterpillar*: Coronal horns of head straight, with stellate or whorled arrangement of the few spinelets. Body enlarged in the middle and tapering, especially behind, many of the developed spines ending in two unequal thorns directed forward and backward. Feeds on Trema (Urticaceæ). *Chrysalis*: Distinctive features undescribed. (δίαυλος, quite fine.)

DIÆTHRIA CLÝMENA Cram. (Callicore janeira Feld.; C. clymena var. meridionalis Bates.) *Butterfly*: Upper surface of wings rich velvety black marked with bright blue, the fore wings crossed by a narrow outwardly crenate belt not reaching either margin from within middle of costal to near end of inner margin, where the scales are metallic; and by a brief preapical slender transverse line; the hind wings with a premarginal, rather narrow, equal band not quite crossing the wing. Under surface of fore wings crimson on more than the basal half, black beyond, crossed near tip by two strongly arcuate, inferiorly tapering white stripes, the inner the broader; hind wings velvety black, the costal margin marked by carmine, the disk with two large irregular double white rings partially encircled by two common larger ones, the outer almost marginal. Expanse 40 mm. *Egg*: Broad at base, nearly hemispherical, with 10–11 vertical ribs and very delicate cross lines; laid singly. *Caterpillar at birth*: Head simple and with body green. *Mature Caterpillar*: Head green, the coronal horns excessively long, straight, brownish green, green posteriorly, having four or five equidistant whorls of spinelets. Body yellowish green with yellowish subdorsal stripes and white papillæ. Length 22 mm. Feeds in Brazil on Trema micrantha. *Chrysalis*: Velvety green on back, pale green below; a white and brown stripe follows the alar ridges, continued on the abdomen as an infrastigmatal stripe; white points occupy the position of the subdorsal spines of the caterpillar. — Has been known to occur once in S. Florida.

MESTRA Hübner.

Butterfly: Antennal club long and slender, gradually incrassate. Eyes naked. Second superior subcostal nervule arising at the end of the cell, which is closed by a slender vein; costal nervule very much swollen at the base. Fore tarsi of male excessively short. *Early stages*: Unknown. (Derivation obscure.)

MÉSTRA AMYMÔNE Ménétr. (Cystineura dorcas Edw.) *Butterfly*: Upper surface of fore wings white, the base and costal and

outer margins light brown, the costal margin with a triangular tooth of brown beyond the cell, the outer margin more broadly bordered above than below and often tinged next the edge with yellow; hind wings fulvous yellow outwardly, the extreme margin brown, pale gray at base with a median and more obscurely a prebasal transverse white band broadest on the costal margin. Under surface ochraceous yellow with the white markings of the upper surface repeated, the prebasal band of the hind wings distinct and brown-edged, the median band more or less broken into unequal brown-edged sometimes confluent roundish spots. Expanse 44 mm. — Texas, September.

TRIBE GYNÆCIINI.

Butterfly: Heavy bodied. Antennæ moderately stout but long, the club slender, elongate, gradually incrassate. Palpi compact, moderately slender, tapering, the last joint rather short. Wings simple, subtriangular, broad, especially the hind pair at its subtruncate outer margin, entire, the hind pair sometimes with a small anal lobe; cell of both wings closed by a slender vein. Last tarsal joint with two rows of spines beneath. *Egg*: Conical, with about 11 very prominent vertical ribs nearly reaching the pole. *Caterpillar at birth*: Trichomes of body shorter than the segments, straight, delicately clubbed at apex, finely toothed. *Mature Caterpillar*: Head thorny, crowned by a pair of thorny spines longer than the head and similar to those of the body, which are long, corneous, surmounted by a whorl of spinelets as important as the terminal thorn, in ranged series, one mediodorsal as important as the others. Feeds on Urticaceæ. *Chrysalis*: Slender and elongate, straight, tuberculate, especially at anterior extremity, bearing a rude resemblance to that of *Papilio* s. s. or *Thais*, some of the tubercles of the laterodorsal series prominent and directed downward.

SMYRNA Hübner.

Butterfly: Body very robust. Eyes naked. Second superior subcostal nervule of fore wings arising before the tip of the cell, the third well before the middle of the wing and extending to the very apex; lowest median nervule of hind wings produced to a short lobe. *Caterpillar*: Only the second stage is known, showing it to be similar to that of the tropical *Gynæcia*. (*σμύρνα*, myrrh; allusion wholly obscure.)

SMÝRNA KARWÍNSKII Hübn. *Butterfly*: Upper surface of fore wings dark brownish tawny at base, black at apex, the colors separated by a straight oblique pale yellow stripe, broad above, tapering below, its inner limit just bordering the cell; three large roundish white spots in a similarly oblique row just before the apex; hind wings dark brownish tawny, margined broadly above, narrowly below, with black. Under surface of fore wings brown at base, followed by a transverse broad oblique slightly arcuate pale yellow band, beyond black, separated from the mottled apex by the repetition of the spots of upper surface; hind wings light gray brown, the basal half or more crowded with concentric, more or less oval but irregular rings of blackish brown, centring, where most regular, in the costo-subcostal and medio-submedian interspaces, the whole outwardly limited by an exceedingly irregular indented line, having its farthest extension in the costo-subcostal interspace and on the submedian nervure; outer portion clouded with dark brown in inverted lunules, centrally marked with two large and two slightly smaller and brighter slightly ovate multicolored ocelli. Expanse 90 mm. *Early stages*: Unknown. — Texas, New Mexico; accidental.

TRIBE COEINI.

Butterfly: Very heavy bodied and large, with very short abdomen. Antennæ naked throughout, stout but long, the club not much enlarged, subcylindrical, elongate, gradually incrassate, both club and stalk delicately bicarinate on the inner lower surface. Palpi very compact but not slender, rapidly tapering and pointed, appressed, the last joint short and rapidly tapering. Wings large and broad, the apex of the fore wings broadly produced, the hind wings with the outer margin rounded subtruncate with or without tails; cell of both wings open or closed; penultimate superior subcostal nervule of fore wings hugging the main stem for half its length and then suddenly divergent. Last tarsal joint with two rows of spines beneath. *Egg and Caterpillar at birth*: Unknown. *Mature Caterpillar*: Head with a pair of short prickly coronal horns. Body armed with ranged thorns having a preapical whorl of spinules; besides the dorsal series there is but a single row on either side above the spiracles, so that the sides of the body are widely exposed. Feeds on Urticaceæ. *Chrysalis*: Rather elongate, compressed, with a dorsal keel and a series of stiff dorsal thorns, preapically whorled with spinules, on the principal abdominal seg-

ments; frontal tubercles formed of rather long, cylindrical curved projections; cremaster broad but pointed.

SYNOPSIS OF OUR GENERA.

COEA. *Butterfly*: Cell of both wings closed; hind wings tailed. *Early stages*: Unknown.

HISTORIS. *Butterfly*: Cell of both wings open; hind wings entire. *Mature Caterpillar*: Head with enormously clubbed coronal appendages. *Chrysalis*: Dorsal spines of abdomen on anterior edge of segments, and 4-5 rayed at apex.

COEA Hübner.

Butterfly: Antennæ less than half as long as the fore wings; fore wings with the cell closed and the third superior subcostal nervule arising at or beyond the middle of the wing; hind wings with cell closed and the upper median nervule prolonged to a slender tail. *Early stages*: Unknown. (κοῖω, i. e. one who perceives; see the next genus.)

COEA ACHERONTA Fabr. (Pap. cadmus Cram.; Pap. pherecydes Cram.) Upper surface of fore wings tawny fulvous at base, separated from the black apex and outer margin, sharply above, vaguely below, by a line which crosses the outer part of the cell obliquely to the centre of the upper median interspace and then zigzags toward the lower outer angle; the black apex has six subquadrate or triangular white spots, four in an oblique series and two beyond, irregularly placed and unequal; hind wings rich dark brown, the basal half with fulvous hairs. Under surface of various shades of brown, enlivened by areas of blue, lilac, and nacreous, the basal half slightly the darker and limited outwardly by a strongly and irregularly crenulate black line, which on the hind wings sends a long loop outward along the upper side of the submedian nervule; other large subocellate black-edged markings occur in the basal half of the wings, a broad submarginal sprinkling of dark brown and lavender scales before the tail of the hind wings, and a nearly straight dark ferruginous cloudy streak across the middle of the outer half of both wings starting from a subapical white spot on the costal margin of the fore wings. Expanse 85 mm. — Texas, New Mexico; accidental visitor.

HISTORIS Hübner.

Butterfly: Antennæ half as long as the produced fore wings; these with the cell open and the third superior subcostal nervule arising well before the middle of the wing; hind wings with the cell open

and no tail. *Egg and Caterpillar at birth*: Unknown. *Mature Caterpillar*: Coronal spines of head strongly clubbed apically. Spines of body terminating in only three spinelets; transversely striped on the sides with three or four stripes to each segment. *Chrysalis*: Dorsal ridge terminating on the abdomen at the posterior limit of the saddle; alar ridge subobsolete; dorsal spines at anterior edge of abdominal segments ending in a whorl of four or five spinelets. (*torop*, one who knows; see preceding genus: allusion obscure.)

HISTORIS ORION Fabr. (Aganisthos o. Bd.-LeC.; Pap. odius Fabr.; Pap. danaë Cram.) *Butterfly*: Upper surface of wings blackish brown, the hind wings more or less fulvous at base, the fore wings with a very large bright fulvous patch occupying almost the whole of the basal half of the wing, and extending as a blunt subtriangular offshoot into the middle of the distal half nearly to the margin; a small preapical ovate whitish spot next costal margin. Under surface rich dark olive-brown, crossed just within the middle by a broad finely black and blue edged lighter band which broadens toward each border, and somewhat similar more basal markings, besides scattered lilac fleckings next the middle of the outer border, marginal and broad on the fore wings, narrow and submarginal on the hind wings; other fainter clouded lines. Expanse 120 mm. *Mature Caterpillar*: Clubbed coronal horns of head beset with thorns. Body green, with dark transverse stripes, of which the anterior of each segment is broader and darker than the others, which are more or less interrupted. Length 75 mm. Feeds on Cecropia. *Chrysalis*: Frontal tubercles granulated; joints of distal half of antennal cases each with a small conical tubercle. Body longitudinally striped with darker and lighter colors. Length 55 mm. — S. Florida; rare and accidental visitor.

TRIBE TYMETINI.

Butterfly: Rather slender bodied, with short abdomen. Antennæ long and slender, feebly scaled, the club rather slender, elongate, gradually incrassate; both club and stalk bicarinate beneath interiorly. Palpi rather slender and elongate, triquetral, apically tapering to a blunt point, the last joint rather short and not very slender. Wings ample, the fore pair broadly produced at the apex, sometimes falcate, the hind wings subtriangular with a distinct anal lobe and an elongate blunt tail at the upper median nervule; cell of both wings open; subcostal and median veins of

hind wings nowhere approximate. Legs delicate and short, the under surface of last tarsal joint with two rows of spines, the others with four. *Egg* and *Caterpillar at birth*: Unknown. *Mature Caterpillar*: Coronal spines of head exceedingly long, briefly and abundantly aculiferous, slender, tapering. Body armed only with a dorsal series of erect tapering filaments on a few segments. Feeds on the Fig family and Anacardiaceæ. *Chrysalis*: Not very elongate; frontal projections consisting of long slender tapering filaments, similar ones (flexible?) crowning the basal wing tubercles, and still others of varying length forming a dorsal series on the abdomen.

MARPESIA Hübner.

Butterfly: Body small for the ample wings. Fore wings apically produced, often falcate; second superior subcostal nervule arising at the end of the cell, the third far toward the tip of the wing; hind wings with very long tails. Fore tibia and femur of male of equal length, the tarsus not half so long; fore tibia of female much shorter than either femur or tarsi. *Mature Caterpillar*: The dorsal filaments are arranged on alternate abdominal segments beginning with the second, the last on the eighth being curved backward apically (much like the anal horn of a hawk-moth caterpillar) and a little longer than the others. *Chrysalis*: Compact, laterally compressed, with dorsal and anal carinæ; head very broad, bearing outwardly a pair of slender filamentous processes much like those of the caterpillar; and similar processes appear on the mesonotal and basal wing tubercles as well as a dorsal series on the second to the eighth abdominal segments, the first abdominal, the thoracic, and the cephalic filaments longer than the rest; cremaster bent downwards, the surface of attachment elongate, parallel to venter. (Marpesus, nom. propr.)

§ *MARPESIA* proper. *Butterfly*: Costal margin of fore wings very strongly arched; hind wings emarginate at upper outer angle, but yet with anterior portion longer than posterior part of fore wings and about as long as their own inner margin apart from the lobes; tails subspatulate. Prevailing colors tawny. *Caterpillar* feeds on Ficus and Anacardium.

MARPESIA PÈLEUS Sulz. (Pap. thetys Fabr.; Pap. petreus Cram.; Timetes eleucha Edw.) *Butterfly*: Upper surface of wings tawny, crossed by three common, straight, slender black or dark ferruginous stripes, the inner not reaching the margin of either wing,

subequidistant, but the outer two converging on the hind wings and bent abruptly outward at the subcostal nervure on the fore wings, the outer double on the hind wings; the cell of the fore wings is crossed by another feeble stripe between the inner two; the outer margin is more or less obscured with blackish brown especially on the hind wings, where the outer stripe terminates in a pair of more or less obscure transversely oval ocelli ringed with white. Under surface dead leaf (♂) or livid (♀) brown, much enlivened by lighter and darker clouds, the stripes of the upper surface indicated more by light than by dark lines, excepting the most conspicuous middle stripe of the hind wings, which is also light-edged inwardly; large faintly indicated obsolescent ocelli follow the outer margin distantly on both wings, most distinct opposite those of the upper surface. Expanse 85 mm. *Mature Caterpillar*: Head obscure yellow, with two black vertical streaks on the face and a black ocellar spot, the coronal horns with short stiff hairs. Body reddish brown except the ventral surface and the dorsal surface from the third abdominal segment backward, which are yellow; the sides are marked in front with round black spots, some with an oblique white line through them; behind, on most of the abdominal segments, with long, oblique, generally white-edged black stripes. Length 36 mm. Feeds on Ficus and Anacardium. *Chrysalis*: White or yellow, marked with dorsal and suprastigmatal rows of pretty large black spots the whole length of the body, besides a large laterodorsal spot on each side of the mesothorax, the filaments and cremaster black. Length 20 mm. — Florida, Texas; accidental.

MARPESIA PELLÈNIS God. (M. eleucha p. Hübner; Timetes eleucha Westw.-Hew.) *Butterfly*: Upper surface of wings tawny, crossed by three inequidistant slender black or ferruginous stripes, the middle one of which is abruptly bent outward at the median nervure of the fore wings, while the outer, which is double on the hind wings, fades out on the upper part of the fore wings; the cell of the fore wings is crossed more or less distinctly by three other similar stripes; outer third of costal margin broadly bordered with black; a submarginal blackish line on both wings, slenderer on the hind pair, and a brown gray field next the margin in the median area of the hind wings enlivened by white-capped transversely oval black and gray ocelli. Under surface lighter (♂) or darker (♀) light dead-leaf brown with the stripes of the upper surface more or less obscurely repeated in ferruginous, accompa-

nied by a series, distant from the margin, of large shadowy ocelli, at all distinct only next the anal angle of hind wings. Expanse ♂ 60, ♀ 75 mm. *Caterpillar* feeds on Ficus. — Texas, New Mexico, Florida; occasional.

§ *TYMETES* Boisduval. *Butterfly*: Costal margin of fore wings gently convex; upper outer angle of hind wings in no way emarginate and yet the anterior portion no longer than the posterior part of the fore wings and very much shorter than the much produced inner margin, disregarding the lobe; tails tapering or rounded apically. Prevailing colors dark brown. *Caterpillar* feeds on Maclura and Morus. (*τιμητής*, an appraiser of values; allusion obscure.)

MARPESIA CORÈSIA God. (*M. zerynthia* Hübn.; Pap. sylla Perty.) *Butterfly*: Upper surface of wings obscure ferruginous brown at the base, deepening outwardly nearly to the border to black-brown, in which, next its outer limit, is a slender, straight, brown stripe, very faint on the fore wings; outer margin broadly ferruginous brown, the hind wings with a pair of slender submarginal blackish brown stripes, sharply angulated at the tail. Under surface with the basal half silvery white, sharply delimited, with two parallel slender ferruginous threads across it followed by a narrow, outwardly black-edged brownish red stripe, the edging deeply crenate; outer half chocolate-brown with the premarginal stripes of the upper surface repeated dully. Expanse 65 mm. *Early stages*: Unknown. — Texas, New Mexico; occasional.

MARPESIA CHIRON Fabr. (*Megalura c.* Blanch.; Pap. marius Cram.; *Marpesia chironias* Hübn.) *Butterfly*: Upper surface of wings brown, with four common, straight, equidistant, tapering, transverse, blackish brown stripes, the outer two curving inward on the median area of the hind wings, the whole apex of the fore wings blackish, crossed by two parallel distant series, one of three, the other of two, minute white spots, the hind wings with a pair of submarginal black stripes (blended on the fore wings) and two subocellate transverse spots above anal angle, besides a minute orange-centred longitudinally oval spot at extreme angle. Basal half of under surface dull lilac-white, with four subequidistant transverse ferruginous threads crossing it, beyond the outer of which the white is changed to very pale yellow; outer half very pale reddish brown faintly cross-striped with iridescent lilac, with a pair of slender premarginal reddish stripes; the white spots of the apex are cloudily repeated on the fore wings, the ocelli,

somewhat altered, on the hind wings, and a fine black pre-marginal thread runs below the tail. Expanse 60 mm. *Caterpillar*: Undescribed; feeds on *Morus* and *Maclura tinctoria*. — Texas, occasional.

TRIBE AGERONIINI.

Butterfly: Antennæ very long and rather slender, the club slender, very elongate and gradually incrassate, bicarinate on the inner side and deeply sulcate between the carinæ. Palpi as in the preceding tribe. Wings ample, simple, the hind wings well rounded with subcrenulate margin; cell of both wings broad and closed. Legs moderately stout, compactly clad, the last tarsal joint with two rows of spines. *Egg*: Short barrel-shaped or rounded, with few (about 10) low vertical ribs often run together above. *Caterpillar at birth*: Trichomes shorter than the segments, apically knobbed. *Mature Caterpillar*: Head subquadrate, crowned by a pair of very long, equal or apically enlarged, widely diverging, briefly aculiferous spines. Body armed with tapering, briefly aculiferous spines of very unequal length ranged in series (one or two spines mediodorsal) most important in the upper series and toward the extremities of the body. Feeds on Euphorbiaceæ. *Chrysalis*: Slender and elongate, laterally keeled over most of the body, dorsally gently hunched on mesothorax and sometimes at base of abdomen, the frontal projections of excessive length, strongly divergent and tapering.

AMPHICHLORA Felder.

Butterfly: Antennæ long, the club long and slender, not more than twice as stout as the stalk, gradually incrassated. Wings ample, the fore wings with the costal margin faintly emarginate at the end of the long cell, the costal vein swollen, the first two superior subcostal nervules arising near together just before tip of cell, the third not far beyond it, and hugging the main vein for the first part of its course; vein closing the cell tortuous and striking the median vein well before its last forking. Fore tarsi of male with a flat mat of diverging hairs. *Egg*: Barrel-shaped, with 10 vertical ribs; laid singly or in columns. *Caterpillar at birth*: See tribe; makes a perch along a midrib with frass and covers itself with its own dung pellets which rest between the trichomes. *Mature Caterpillar*: Coronal spines of head three times as long as the face; inequality of spines of body less marked

than in others of the tribe. Feeds on *Dalechampia*. *Chrysalis*: Relatively stout, with rather rapidly tapering abdomen and frontal horns almost half as long as the body. (ἀμφί, χλωρός, encompassed with green, i. e. a spring butterfly.)

AMPHICHLORA FÓRNAX Hübn. (*Ageronia* f. Hübn.) *Butterfly*: Upper surface of wings marbled in the most intricate fashion with black, white, brown, and cerulean blue, the black and brown appearing to form the ground color, the white occurring almost entirely on the fore wings and there forming a loose broad band of large spots running from beyond the middle of the costal border to the lower outer angle, the blue appearing as lunulate, subcontinuous transverse markings, and next the margin, especially on the hind wings, as the outer ring of large ocelli having usually a white or blue pupil; a sinuous black bar crosses the middle of the cell of the fore wings having a red spot in its lower half. Under surface of fore wings as far as middle of cell impure white, beyond black heavily spotted with pure white, the larger spots comprised in three transverse parallel bands, in each of which, especially the middle one, the spots are subequal, but the shorter outer band has one longitudinal bar greatly larger than the others in its series; the cellular bar is repeated; hind wings uniform dark brownish yellow, with a marginal series of black-capped white spots, the outer half or more of the upper three interspaces filled with elongate black and white ocellate spots, and the following three with a very small black-capped or encircled white spot near centre of its outer half. Expanse 75 mm. *Egg*: Short barrel-shaped with about 10 uniform vertical ribs, in part blended above, laid in columns of 5–10 in number. *Caterpillar at birth*: Not distinctively described; covers itself with pellets of its excrement. *Mature Caterpillar*: Dorsal spines of hind end and subdorsal thoracic spines with numerous small equal spinelets, giving them the appearance of cylindrical brushes; subdorsal and suprastigmatal yellow stripes, the former edged inferiorly with black, the latter sending oblique shoots downward and backward toward the stigmata; beneath red. Feeds in Brazil on *Dalechampia triphylla*, *ficifolia*, and *stipulacea*. *Chrysalis*: Either green or blackish brown, with a broad unequal whitish dorsal stripe, and an infrastigmatal white band, which continues forward along the edge of the wing-cases and unites with its opposite behind the frontal tubercles, involving also most of the ventral portion of the abdomen. — S. W. Texas; purely accidental

AMPHICHLORA FERONIA Linn. (*Ageronia* f. Hübn.) *Butterfly*: Upper surface of wings almost precisely as in *A. fornax*, with only a slightly greater preponderance of blue, and with the red spot extending also to the upper part of the cellular bar. Under surface of fore wings also the same, but the hind wings sordid white, sometimes with a faint yellowish tinge, and with the same markings, but the premarginal markings of the median area are large, very broadly white-centred, circular black spots, and in the same interspaces are traces of the proximal edging of the large ocellate spots of the subcostal area. Expanse 75 mm. *Early stages*: Unknown. — S. W. Texas; purely accidental.